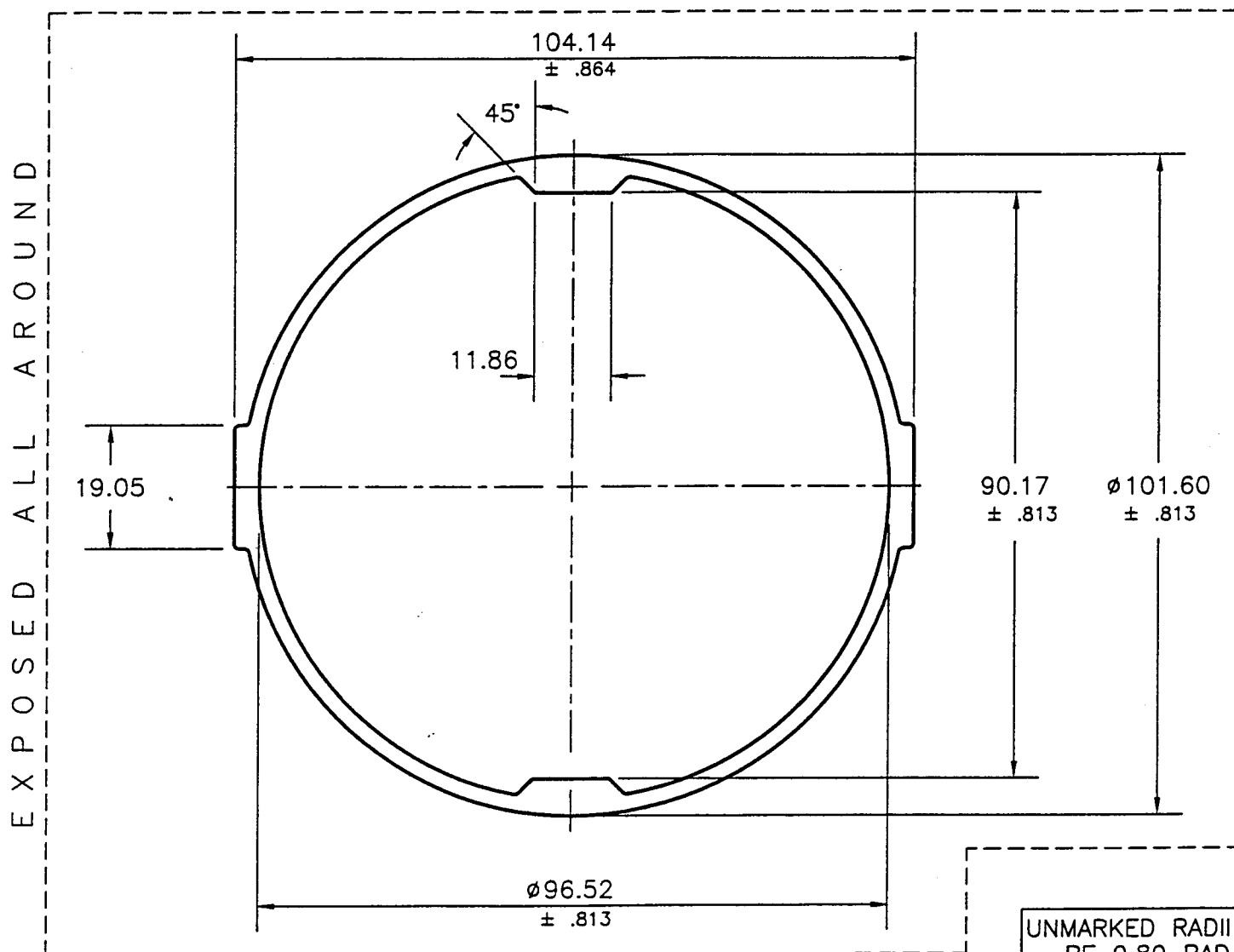


CLIENT	DART AEROSPACE LTD.	CLIENT No.	REF:VH-10696A	No. DE PROFILE/DIE No.	MH-18868
DESCRIPTION	D2500-C1	DIE LOC.	Z3-760	No. DE SERIE DASH No.	1
		BACKER LOC.		No. D'OFFRE PROPOSAL No.	M18868

ACTUAL SIZE



EPAISSEUR DE PAROIS 2.54 ± 0.25 EXCEPTE TEL QU'INDIQUE
WALL THICKNESS EXCEPT AS SHOWN

UNMARKED RADII TO
BE 0.80 RAD.
BREAK ALL SHARP
CORNERS WITH
0.25 RAD.

Caradon Indalex

DIVISION OF/DE CARADON LTD.

MONTREAL - TORONTO - CALGARY - VANCOUVER

ARRONDIR TOUS LES COINS AVEC UN RAYON DE 0.25 mm (0.010") SAUF AUTREMENT INDIQUE.
BREAK ALL CORNERS WITH R0.25 mm (0.010" R) UNLESS OTHERWISE SPECIFIED.

TOLERANCES STANDARD SAUF SI INDIQUE
STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED

SURF. ETABLI EST. AREA	1.45	PO ₂ IN ²	936.42	MM ²	PER. EXT. OUT PER.	PO IN	325.45	MM				
POIDS ETABLI EST. WEIGHT		LBS/PI-FT	2.549	KG/M	FACTEUR FACTOR		15					
PER. ETABLI EST. PER.		PO IN	632.29	MM	C.C.D.	IN/PO	107.53	MM				
DESSINE PAR DRAWN BY		VERIFIE PAR CHECKED BY			ECHELLE SCALE	1:1	DATE	98,02,16				
PRESSE PRESS	CAV.	GRANDEUR DIE SIZE	PKT.	L.I.P.	BACKER	GRANDEUR SIZE	BACKER No.					
2		10X5 1/2										
CONTR	ALLIAGE ET TREMPAGE ALLOY AND TEMPER	FACTEUR D'EXTRUSION EXTRUSION RATIO	SHIM NO.	BOLSTER No.								
8	6061-T6	38		JCDIA5								
					DATE	SYM.	REVISIONS					

No. DE PROFILE / DIE No.
MH-18868

02/99 TUE 10:54 FAX 905 427 2202
10/08/99 15:01 9058419444

BON L.
CANADA INC.

This is not a BUN L CANADA INC. design. Customer MUST check and test the design since LOWE'S CANADA INC. is not liable for products produced from it. BUN L CANADA INC. only warranty is stated on the order acknowledgment.

Ceci n'est pas un dessin de BOW L CANADA Inc. Le client doit vérifier le dessin minutieusement, car BOW L CANADA Inc. n'a aucune responsabilité, ni obligation quant aux produits qui pourraient en être tirés. L'accusé de réception de la commande tient lieu de seule garantie.

LES TOLERANCES COTÉES SONT APPLIQUÉES SANS INDICATION CONTRAIRE.

ALLOY
ALLIAGE 6061

FINISH
FINIS STO.

EXPOSED
EXPOSED

AREA / SURFACE
[1.45] 936.

lbs/ft MASS / MASSE 1.705 2.52

PERMETER / PERIMETRO

[34 006] 632

OUTSIDE PERIM / PERIM

2.811	383
FACTOR / FACTEUR	
1.5	350

15 230
C.C.D. / D.C.F.

[4.158] 105
BREAK CORNERS / ATTORNEY ANG

LO.032R] 0.1

UNCLASSIFIED NAME / RAYMOND NEW

[] //

DATE 70

DRAWN BY
DESIGNATEUR DVB

SCALF
REHLE

CLASS NO. 7E
NO. CATEGORY

GAP RATIO
LIABILITIES
TO EQUITY

- TO FRANCES MON LUMIA
- TO LUMIAERS DIMENSIONE
- SPECIFICATION D'OUTIL

CUSTOMER NO. AND DU CL

STATE NO. AND. PT. 1

89710

IMPERIAL VALUES AS INFORMATION ONLY AND NOT TO BE USED IN PRODUCING PLANT.
ALUMINUM ASSOCIATION TOLERANCES TO APPLY UNLESS OTHERWISE NOTED

SURVE NO./NO. PROF ILE

897105

Customer's signature indicates that Dimensions and Tolerances have been accepted as shown, also that the Customer assumes all legal responsibility for having this profile made and will fully protect "Bon J. Canada Inc." or its agents in case of patent or any other claims.

DATE _____

SIGNATURE

SYM.

DESCRIPTION

CUSTOMER

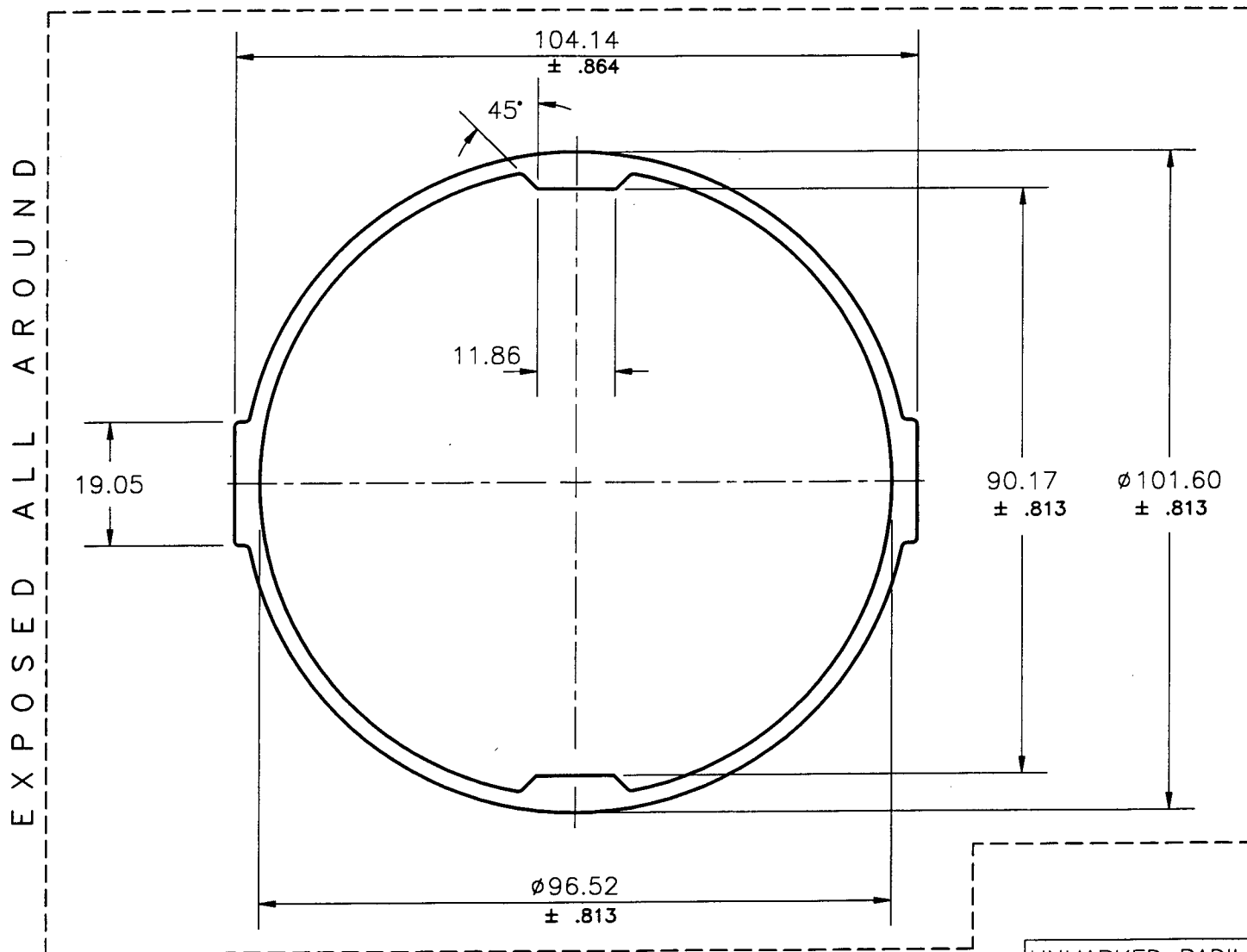
CLIENT

CUSTOM HOLLOW

DART AEROSPACE

CUSTOMER DART AEROSPACE LTD.		CUSTOMER NO. 2481		PROPOSAL# 8258-1		DIE NO. VH-10696A
DESCRIPTION: D2500-C1		DATE 04/97	SYM A	CLASSIFICATION#		
		REVISION I.D. MARK REMOVED				
~ INDALEX I.D. .20mm x 90° V-GROOVE (2x)						

A C T U A L S I Z E



SUPERCEDED BY

48/03/13 DS

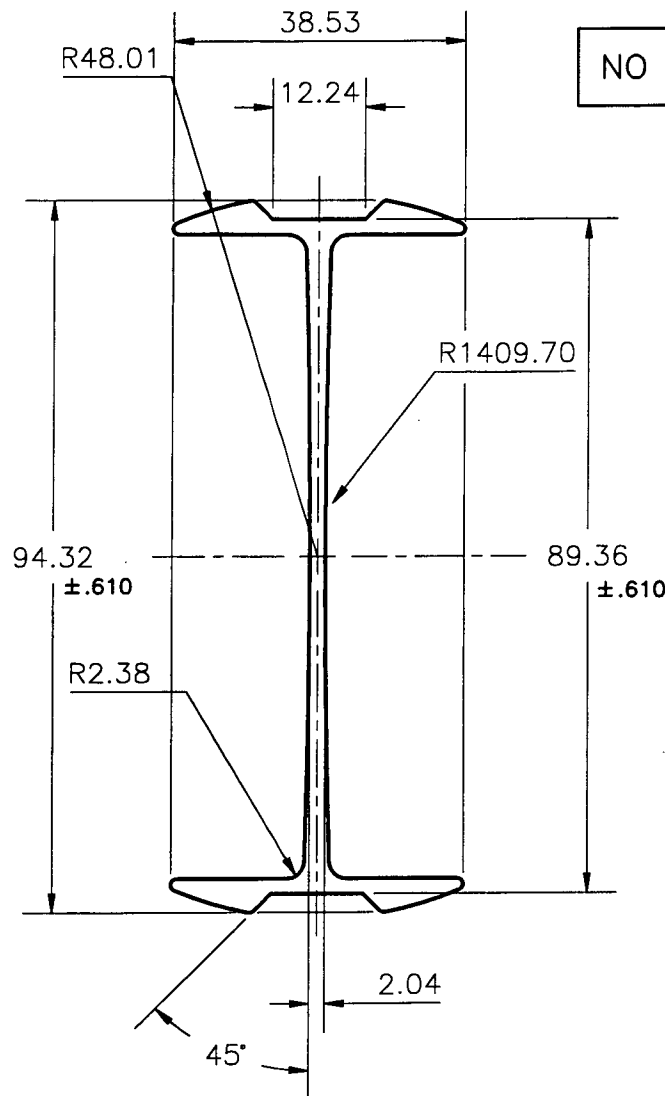
UNMARKED RADII TO
BE 0.80 RAD.
BREAK ALL SHARP
CORNERS WITH
0.25 RAD.

Caradon Indalex

WALL THICKNESS 0.100 IN 2.54 MM EXCEPT AS SHOWN		PRICING: <input type="checkbox"/> WT. <input type="checkbox"/> PC.		CHECKING GAUGE: <input type="checkbox"/> YES. <input type="checkbox"/> NO.		LIQ. NITROGEN: <input type="checkbox"/> YES. <input type="checkbox"/> NO.	
EST. AREA 1.451 IN² 936.39 MM²		EST. PER. 12.813 IN 325.45 MM		DIE SIZE. 10 x 5.5		PKT. DIE LOC.	
EST. WT. 1.742 LBS 4T. 2.540 KG/M		FACTOR 14 / 249		BACKER SIZE.		FEEDER SIZE.	
EST. PER. 24.911 IN 632.75 MM		C.C.D. 4.157 IN 105.60 MM		BACKER NO.		FEEDER NO.	
DWN BY ALLOY 6061-T6		SCALE 1:1 DATE 97/9/11		BACKER LOC.		FEEDER LOC.	
BREAK ALL CORNERS .010" R (0.25R) UNLESS OTHERWISE NOTED.		STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED		BOLSTER NO. 1002		BOLSTER LOC. D19 CAV. 1	
				PRESS NO. 2		CONT'R 188 EXT. RATIO 29	

CUSTOMER DART AEROSPACE LTD.	CUSTOMER NO. 2481		PROPOSAL# 8258-2	DASH VS-10695A
			CLASSIFICATION#	
DESCRIPTION: D2500-3	DATE 05/97	SYM A	REVISION I.D. MARK REMOVED	

~ INDALLEX I.D. .20mm x 90° V-GROOVE (2x)



NO EXPOSED SURFACE

UNMARKED RADII TO
BE 0.80 RAD.
BREAK ALL SHARP
CORNERS WITH
0.25 RAD.

A C T U A L S I Z E

Caradon Indalex

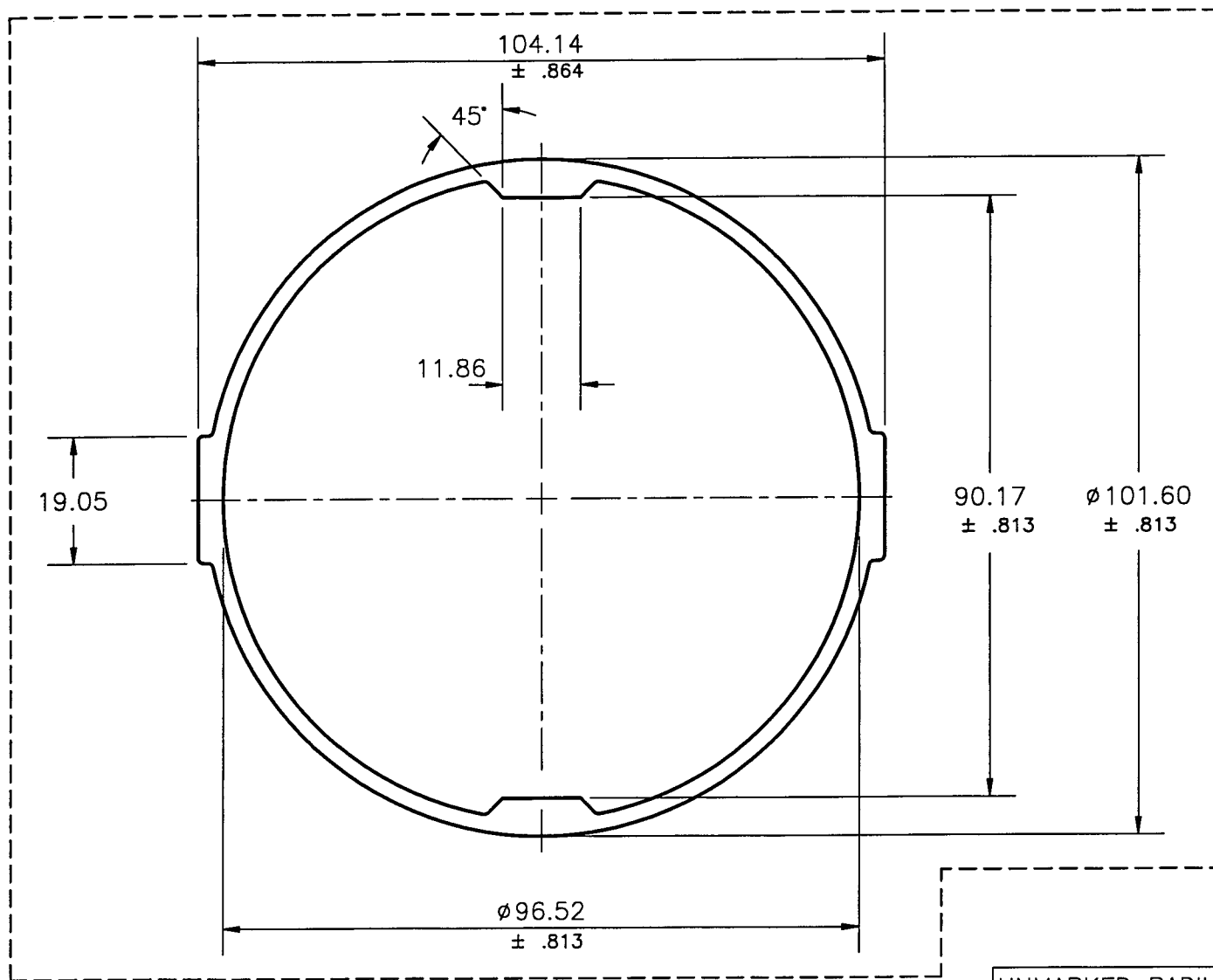
PRICING: <input type="checkbox"/> WT. <input type="checkbox"/> PC.		CHECKING GAUGE: <input type="checkbox"/> YES. <input type="checkbox"/> NO.	LIQ. NITROGEN: <input type="checkbox"/> YES. <input type="checkbox"/> NO.
DIE SIZE: 9 x 1.5		PKT. 1/2	DIE LOC.
WALL THICKNESS 0.080 IN 2.04 MM EXCEPT AS SHOWN		BACKER SIZE: 9 x 4	
EST. AREA 0.670 IN ² 432.17 MM ²		FEEDER SIZE.	
EST. WT. 0.804 LBS/FT. 1.172 KG/M		BACKER NO. 11253	
FACTOR 16 / 277		FEEDER NO.	
EST. PER. 12.761 IN 324.14 MM		BACKER LOC.	
C.C.D. 3.780 IN 96.02 MM		FEEDER LOC.	
DWN BY		BOLSTER NO. C22	BOLSTER LOC. A2
ALLOY 6061-T6		PRESS NO. 2	CAV. 1
SCALE 1:1		CONT'R 188	EXT. RATIO 64
DATE 97/9/11			
BREAK ALL CORNERS .010"R (0.25R) UNLESS OTHERWISE NOTED.		STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED	

CUSTOMER DART AEROSPACE LTD.	CUSTOMER NO. 2481	DIE NO. VH-10696A
DESCRIPTION D2500-C1	DIE LOC.	DASH NO.
STANDARD ALUMINUM ASSOCIATION TOLERANCES APPLY	BACKER LOC.	PROPOSAL NO. 8258-1

A C T U A L S I Z E

NOTE: BREAK ALL CORNERS WITH .010" (.254MM) RADIUS UNLESS OTHERWISE NOTED.

E X P O S E D A L L A R O U N D



WALL THICKNESS. 2.54 ± .152 EXCEPT AS SHOWN

SUPERCEDED BY

97/09/22 DS

UNMARKED RADII TO BE 0.80 RAD.
BREAK ALL SHARP CORNERS WITH 0.25 RAD.

Caradon Indalex

TORONTO - MONTREAL - CALGARY - VANCOUVER

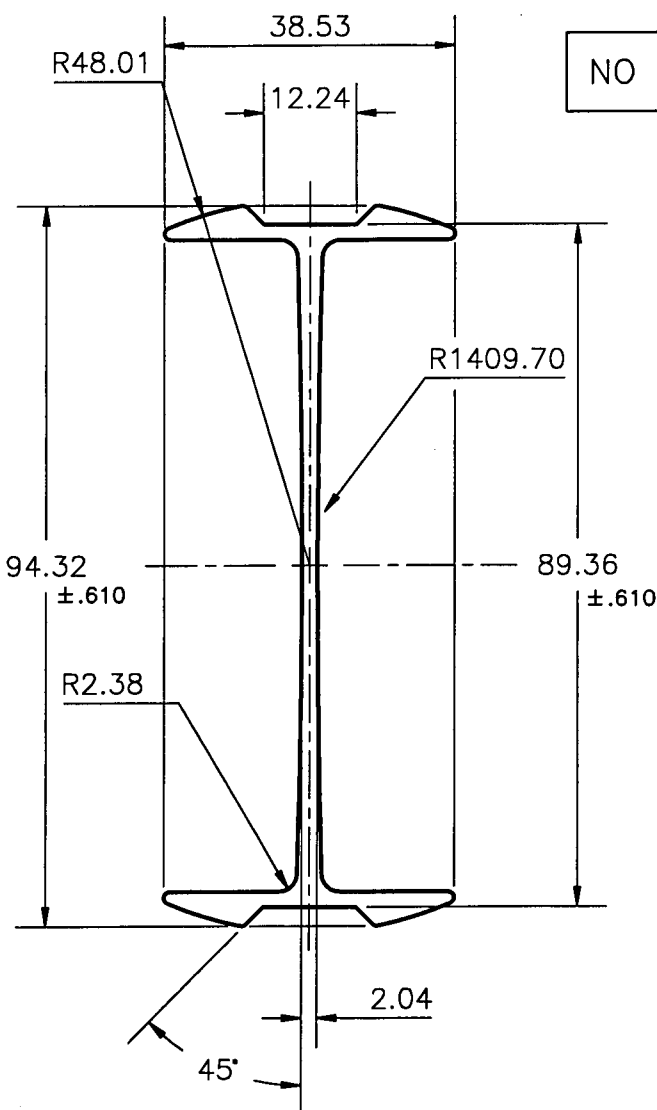
A division of Caradon Limited

STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED

EST. AREA 1.451 IN ² 936.39 MM ²	OUT PER. 12.813 IN 325.45 MM	APR/15/97 I.D. MARK REMOVED	
EST. WT. 1.707 LBS/FT 2.540 KG/M	FACTOR 15 / 249		
EST. PER 24.911 IN. 632.75 MM	C.C.D. 4.157 IN 105.60 MM		
DWN BY	CKD BY	SCALE 1:1	DATE 96/06/06
PRESS CAV.	DIE SIZE	PKT.	LIP
2	1	10 X 5.5	
CONT'R	ALLOY AND TEMPER	EXT. RATIO	SHIM NO.
188	6005A T61	29	
		1002 (D19)	DATE
		SYM	REVISION
			BY

DIE NO.
VH-10696A

CUSTOMER DART AEROSPACE LTD.	CUSTOMER NO. 2481	DIE NO. VS-10695A
DESCRIPTION D2500-3	DIE LOC.	DASH NO.
STANDARD ALUMINUM ASSOCIATION TOLERANCES APPLY	BACKER LOC.	PROPOSAL NO. 8258-2



NOTE: BREAK ALL CORNERS WITH .010" (.254MM) RADIUS UNLESS OTHERWISE NOTED.

WALL THICKNESS. EXCEPT AS SHOWN

A C T U A L S I Z E

Caradon Indalex

TORONTO - MONTREAL - CALGARY - VANCOUVER

A division of Caradon Limited

STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED

EST. AREA 0.670 IN ² 432.17 MM ²	OUT PER. 0.000 IN 0.00 MM	APR/15/97	I.D. MARK REMOVED	
EST. WT. 0.788 LBS/FT 1.172 KG/M	FACTOR 16 / 277			
EST. PER 12.761 IN. 324.14 MM	C.C.D. 3.780 IN 96.02 MM			
DWN BY	CKD BY	SCALE 1:1	DATE 96/06/06	
PRESS CAV.	DIE SIZE	PKT.	LIP	BACKER SIZE
2	1	9 X 1.5	1/2	9 X 4
CONTR	ALLOY AND TEMPER	EXT. RATIO	SHIM NO.	BOLSTER NO.
188	6005A T61	64	C-22 (A2)	DATE
				SYM
				REVISION
				BY

DIE NO. VS-10695A

DART AEROSPACE LTD.

2481

VH-10696

[illegible]

D2500-C1

**DIE
LOC.**

DASH
NO

STANDARD ALUMINUM ASSOCIATION TOLERANCES APPLY

BACKER
LOC.

PROPOSAL NO.

8258-1

~ INDALEX I.D. .20mm x 90° V-GROOVE (2x)

A C T U A L S I Z E



WALL THICKNESS. **2.54 ±.152**EXCEPT AS SHOWN

SUPERCEDED BY

97/04/15 DS

UNMARKED RADII TO
BE 0.80 RAD.
BREAK ALL SHARP
CORNERS WITH
0.25 RAD.

Caradon Indalex

TORONTO - MONTREAL - CALGARY - VANCOUVER

A division of Caradon Limited

STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED

DIE NO.
VH-10696

Inertia check using physical tests									
test performed on 97.06.18 and 97.06.19									
Test assumed a point load in the center of a simply supported beam									
basic equation $d = PL^3 / (48EI)$									
common properties									
E	9.90E+06								
L	92.5								
Med bell tube with bonded I beam					Med bell tube with non bonded I beam				
theory I	4.54								
platform	Test load	Meas. def	calc I	% diff	platform	Test load	Meas. def	calc I	% diff
7.5	0	0.003	4.16379	-8.3%	7.5	0	0.003	4.16379	-8.3%
7.5	25	0.0135	4.009575	-11.7%	7.5	25	0.0145	3.733053	-17.8%
7.5	50	0.024	3.990298	-12.1%	7.5	50	0.024	3.990298	-12.1%
7.5	75	0.033	4.16379	-8.3%	7.5	75	0.031	4.432421	-2.4%
7.5	100	0.043	4.16379	-8.3%	7.5	100	0.0405	4.420814	-2.6%
7.5	125	0.053	4.16379	-8.3%	7.5	125	0.0505	4.369918	-3.7%
206 tube with light web									
theory I	1.585								
platform	Test load	Meas def	calc I	% diff					
7.5	135	0.165	1.4384	-9.2%					
206 tube with heavy web					206 tube with heavy web try two				
theory I	2.304								
platform	Test load	Meas def	calc I	% diff	platform	Test load	Meas def	calc I	% diff
7.5	185	0.165	1.943102	-15.7%	7.5	165	0.1585	1.812628	-21.3%
Light step extrusion D2644									
theory I	0.7454								
platform	Test load	Meas def	calc I	% diff					
7.5	59.69	0.157	0.712777	-4.4%					

97/06/23/BW

Conclusion:

Light Step extrusion (D2622): Deflection and strength are ok to use theoretical values. Be aware that deflections may be up to 5% greater than theory and margins must be greater than .05

206 B light: deflections are within range ok to use theory
Deflections may be up to 9% greater than expected
Margin must be greater than .095

205: deflections are within range ok to use theory
Deflection may be 8% greater margin to be larger than .085

206 B Heavy: deflections are too large: may be due to improper "I" deflection check to be done on modified "I" shape to confirm theory

Caradon Indalex

1765 Coast Meridian Road
Port Coquitlam, B.C. V3C 3T7

Telephone (604) 942-6604
Facsimile (604) 942-9424

April 22, 1997

Dart Aerospace Ltd.
2071 Malaview Avenue
Sidney, B.C.
V8L 5X6

Dear Ms. Linda Bradley

Please find enclosed copies of extrusion drawings for your files.

Yours truly,
CARADON INDALEX



Delores Tillotson
Sales Coordinator

Encl.
DT/dd
letdel.

Caradon Indalex

Phone #: (604)942-8804

Fax #: (604)942-9424

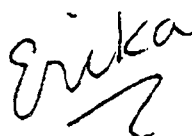
No. of Pages: 1
(including cover page)

DATE: August 20, 1996
TO: David Sheppard
Dart Aero
FROM: Erika-de Koning
Sales Coordinator

RE: 6005A-T61

To follow-up our phone conversation, 6005A-T5 has the same properties as 6005A-T61. It is simply the notation that has changed.

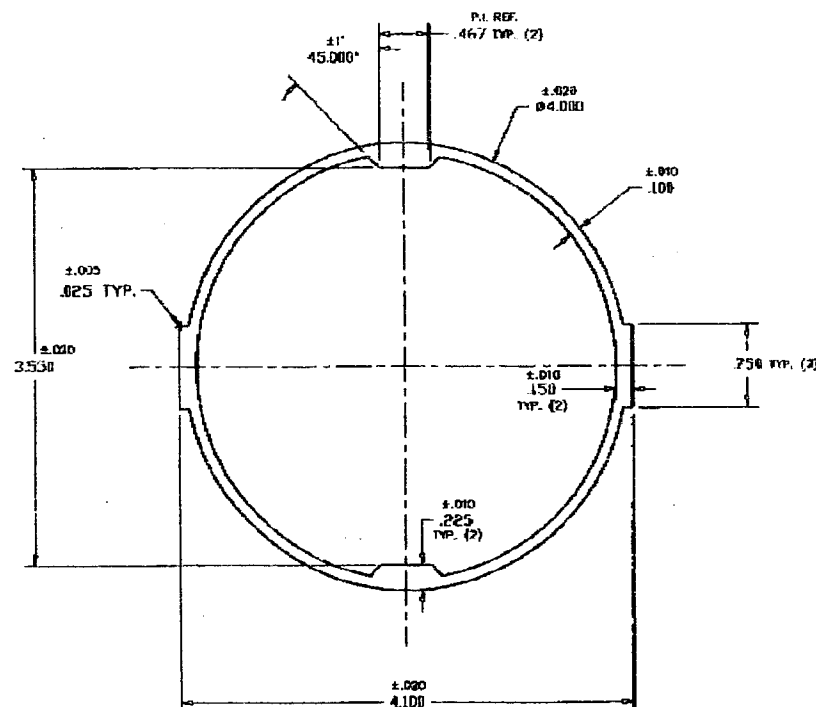
Regards,

A handwritten signature in cursive script, appearing to read "Erika", with a stylized flourish underneath.

REDUCED COPY
DO NOT SCALE

DRAWING

PRICE: 7	PRICE: 11	D2500-1	PAH-28030
ALLOY: 6061-T6	ALLOY:	CUSTOMER PART NUMBER	DIE NUMBER
P/R: 1100	P/R:		
TYPE: 4	VAR: NO	AND: NO	



RETURN THIS PRINT WITH ANY NECESSARY
CORRECTIONS CLEARLY MARKED. SHOULD OUR
DRAWING BE SATISFACTORY YOUR SIGNATURE
SHALL AUTHORIZE US TO PROCEED WITH THE
CONSTRUCTION OF THE DIE

APPROVED BY: *[Signature]*
DATE: 00.02.21

NOTES:

1. SAMPLE FROM EACH LOT TO BE PULL TESTED TO ASTM STD B221 BY AN APPROVED TESTING LAB.
2. BREAK ALL SHARP CORNERS R.010 MAX.
3. PART MUST BE SYMMETRIC ABOUT CENTERLINES.
4. PART EXPOSED ALL AROUND.

DO NOT SCALE DRAWING

ALUMINUM ASSOCIATION STANDARD TOLERANCES WILL APPLY UNLESS OTHERWISE SPECIFIED

REVISIONS					Corradon Midwest Aluminum 330 Strawn Rd. P.O. Box 98 Crestwood Ind. Park Mountaintop, PA 18707				PAH-28030
DATE	SYM	DESCRIPTION	BY	RCR #					
					CUSTOMER:				REV.
					PART NAME: CROOVED BACKER				REV.
					EST. AREA:	1.452	FACTOR:	14	REV.
					WT./FT.:	1.742	EST. PER.:	24.957	
					SCALE:	FULL	OUT. PER.:	12.871	REV.

CHK. BY: DATE: 2/3/00 DRN. BY: JS